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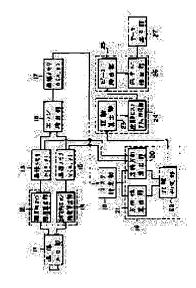
NOSO KAZUNORI

(54) CIRCLE DETECTING DEVICE

(57) Abstract:

PURPOSE: To improve the reliability of circle detection and to increase the processing speed by calculating the respective values of the normal direction of an edge constitution point and the straight line direction of the straight line connecting the edge constitution point and an optional point on an edge image, extracting the edge constitution point when the value of the straight line direction is smaller than a specific value based upon the value of the normal direction and deciding the presence of a circle.

CONSTITUTION: This device is equipped with edge intensity calculating means 12 and 14 which calculate lateral edge intensity and longitudinal edge intensity, a normal direction calculating means 20 which calculates the normal direction of the edge constitution point from the calculated edge intensity values, a directivity calculating means 21 which calculates the direction of the straight line connecting the edge constitution point and optional point, and a comparative decision means means 22 which extracts the edge constitution point and outputs it to a histogram generating means when deciding that



the direction of the straight line is within a specific value based upon the normal direction. Then the normal direction of the edge point is detected and edge points which are not on an arc are excluded to generate a histogram. Consequently, the reliability of the circle detection is improved and the circle detection is speeded up.

LEGAL STATUS

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